

# VIRGINIA WILDLIFE

NOVEMBER 1984

ONE DOLLAR



# VIRGINIA WILDLIFE

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Inland Fisheries

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Dedicated to the Conservation of Virginia's Wildlife and Related Natural Resources

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# Cover

Grouse galore! This month we feature the ruffed grouse on our front and back covers. Our cover painting is the work of Dennis Burkhart, New Providence, Pennsylvania. The back cover painting, "Old Ruff," by Jim Wilson, Newport News, is the featured work for our annual Christmas print offer. Read more about this popular gamebird beginning on page 11.



by Curtis Badger

# Big-League Angling

Casting for channel bass, or red drum, in the Atlantic is the pinnacle of fishing.



## *of Virginia's coast*



the water. "When I was a child, we'd go down to the beach and catch fish," he says. "It's like a tradition. You can't just go to the beach and not catch something. It's part of the culture here." The beach is a mix of sand and rocks, with a few small buildings and a lifeguard stand visible in the distance. The water is calm, reflecting the warm colors of the sunset. The man is smiling, clearly enjoying his time at the beach.

He is a member of a local fishing club, which has been around for over 50 years. "We have a great community here," he says. "Everyone is friendly and supportive."

The beach is a popular destination for tourists, especially during the summer months. "It's a great place to relax and enjoy the sun," says the man. "There are lots of people here, but it's still a peaceful place to be." The beach is located near a small town, which has a few restaurants and shops. The town is known for its seafood, particularly its oysters. The man is looking forward to trying some fresh oysters later in the evening.

The beach is a great place to take a walk and enjoy the beauty of the ocean. "It's a wonderful place to be," says the man. "I'm glad I found it."

Better yet, hire a local guide for your first few trips to the islands, until you feel comfortable handling the trip yourself. The Virginia Coast Reserve has a listing of local guides, as well as information on fishing in the Reserve. Send a self-addressed, stamped envelope to Virginia Coast Reserve, Brownsville, Nassawadox, Virginia 23413. The Reserve also offers guided interpretive tours of the islands, so if you're interested in making a non-fishing trip, ask for tour information.

Although fishermen and hikers are welcome on the islands, the primary function of the reserve is to provide a sanctuary for wildlife, so a few precautions are in order to insure that humankind and the rest of nature peacefully co-exist. Use of motor vehicles on the islands is prohibited. Overnight camping and campfires are not allowed. And domestic pets are asked to stay at home. Also, spring is prime time for nesting activities by plovers, terns, skimmers, and other species. The birds nest in colonies on the beach, and an unwitting fisherman can do serious damage to a nesting colony by walking near it. So if you see a congregation of birds on the beach during this spring nesting period, be careful to avoid it.

As far as equipment is concerned, the experienced surfcaster has learned to travel light. "You don't need to bring your entire tackle box with you," says Barry. "Most fishermen use a small canvas daypack for hooks, leaders,

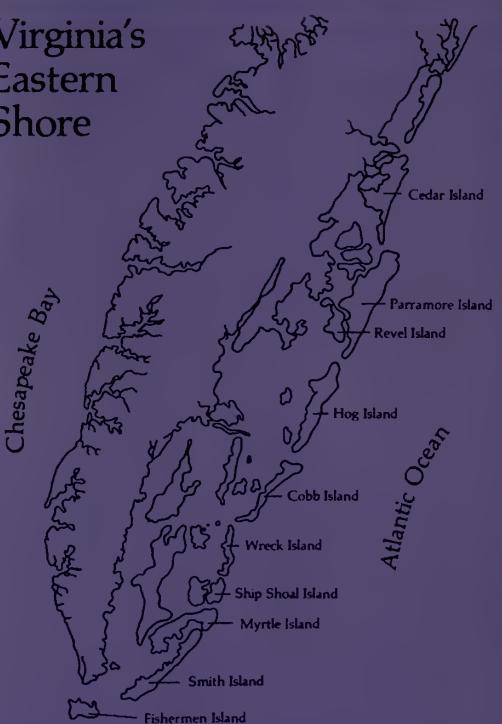
sinkers, bait, a gaff, and food and drink. If it doesn't fit in the pack, you probably don't need it anyway."

Standard equipment calls for a heavy rod in the 10-to 12-foot category that is capable of casting four ounces of weight and three ounces of bait a long distance. Barry prefers a conventional reel over an open-face spinning reel. Line should be 15- to 20-pound test, and you should attach a shock leader of at least 40-pound test. If you are using a 10-foot rod, attach about 12 feet of shock leader with a blood knot or similar knot. The leader will absorb the shock of the cast; without the leader, smaller line will often snap under the pressure of casting six to eight ounces of terminal tackle.

"The secret to catching channel bass is being able to cast well," says Barry. "If you take your discount-store spinning rig out there you're not going to do much. The general rule is that the person who can cast the farthest will catch the most fish. You have to have the right equipment and you have to know how to use it well. Some guys from Virginia Beach come over here every year, and they can cast a four-ounce sinker out of sight. They always catch a lot of fish."

Most surf fishermen use a conventional fish-finder rig, which has a sliding sinker. Hook sizes range from 6/0 to 9/0, although Barry says he prefers the smaller variety. The most popular bait is the peeler crab which is availa-

## Virginia's Eastern Shore



*The Barrier Islands off Virginia's Eastern Shore are ideal places to locate channel bass. If you've never been, it's a good idea to hire a guide.*

ble at most local bait and tackle shops or in seafood markets. The crab is usually quartered, and the hook is threaded through a joint where the legs attach. Rubber bands can be used to insure that the bait remains attached to the hook.

Local fishermen are increasingly using fresh menhaden as bait for channel bass. Many claim that menhaden is just as effective, and it is cheaper than peeler crabs, which cost about one dollar each in the retail market. "We've found that menhaden are good," says Barry, "but they have to be fresh. If they are a day old you can forget it."

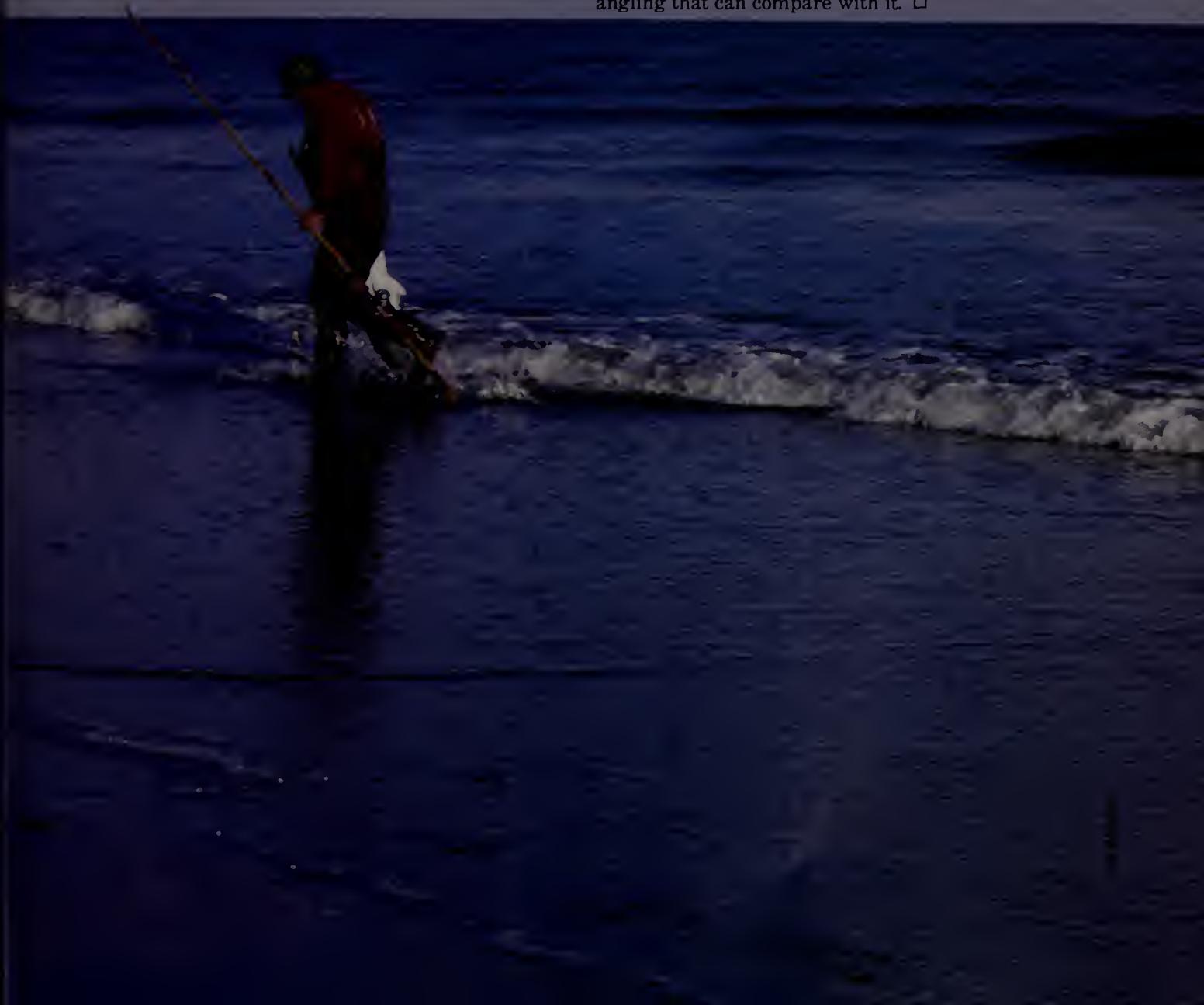
During portions of the fishing season—early spring and late fall—peeler crabs are sometimes not available. Cut-bait is the usual second course when the crab supply dwindles. "Mullet is the best bait for fall fishing," Barry claims. "You can either buy them, or, better yet, bring a cast-net and catch them in the shallows behind the islands. That way, you know they're fresh. Bluefish and spot are good bait, too, but I think mullet is better. It even stays on the hook better."

Another worthy alternative is a concoction developed by local anglers called the "Eastern Shore sandwich." A clam is sandwiched between two chunks of peeler crab, making a versatile bait that is effective on both channel bass and black drum, which at times come in mixed

schools off the Barrier Island beaches. Black drum prefer clams, and channel bass prefer crabs, so the fisherman has all bases covered with this bait. The clam is a fragile bait, and the crab performs the additional duty of helping to hold it on the hook.

The importance of Virginia's channel bass fishery is reflected in Virginia Saltwater Fishing Tournament statistics. In 1983, fishermen registered 57 channel bass that topped the 40-pound citation minimum. And because the state tournament does not begin until May 1, there were an unknown quantity of 40-pound-plus fish caught prior to that date. Barry Truitt is one of the fishermen lobbying for an earlier opening date for the tournament, and he has good reason. Last year he caught a 57-pound channel bass, a personal best, on April 30.

Consider, too, that the all-tackle record for channel bass was established in the surf of a Virginia Barrier Island. Herman Moore set the standard in 1981 with an 85-pound, 4-ounce giant taken at Wreck Island. Surfcasting for channel bass is not the easiest or most accessible sport. The trip to the Barrier Islands entails a boat ride across a shallow bay and, frequently, a long walk to reach prime fishing areas. And then, there is no guarantee that the trip will be a success. But the thrill of hooking up with a trophy channel bass in the surf makes it all worthwhile. There are few experiences in all of angling that can compare with it. □



**A**fter autumn's brilliant burst of color is over and the crowds have left, you can travel the Skyline Drive and see a different kind of show.



*Why Not*  
N · O · V · E · M ·



If you live in Virginia, chances are you've enjoyed many of the natural wonders of Shenandoah National Park, made accessible by the beautiful Skyline Drive running along the crest of the Blue Ridge Mountains. Perhaps you've watched the green of spring creeping up the slopes at the rate of a hundred feet a day, and photographed the many wildflowers hiding among the fallen leaves in May and June. More than likely you have eaten picnic lunches at the roadside parks, escaping summer's heat "down below." And surely you've experienced the bumper-to-bumper traffic motoring along the Drive to view autumn's colorful show in October.

# B · E · R ?

A Photo-Essay  
by Helen Inge



**B**ut have you ever sought the beauty that awaits you in Shenandoah after the last brilliantly colored leaves have gone? In November there is still much to enjoy at a time when there is virtually no traffic, and winter's ice and snow have not yet made driving hazardous. Nature provides one of her best shows as animals become less hesitant to leave their hideouts. Deer wander along the road in large numbers, and smaller creatures hop about uninhibited by human presence.

However, it's the trees, bare of their foliage, that are most appealing to even the unartistic eye. Nowhere but high in the mountains, where only the strongest survive, do we see such beautiful shapes of gnarled and twisted branches, evidence of constant struggle against the elements.

Hike some of the trails, such as Old Stoney Man, to the higher peaks where you'll enjoy ever-changing views of the lovely valleys below with layer upon layer of mountains fading off into the distance. Your November visit to Shenandoah will be enhanced by sunsets that can hardly be surpassed in their tranquil beauty.

Why not November? □

From

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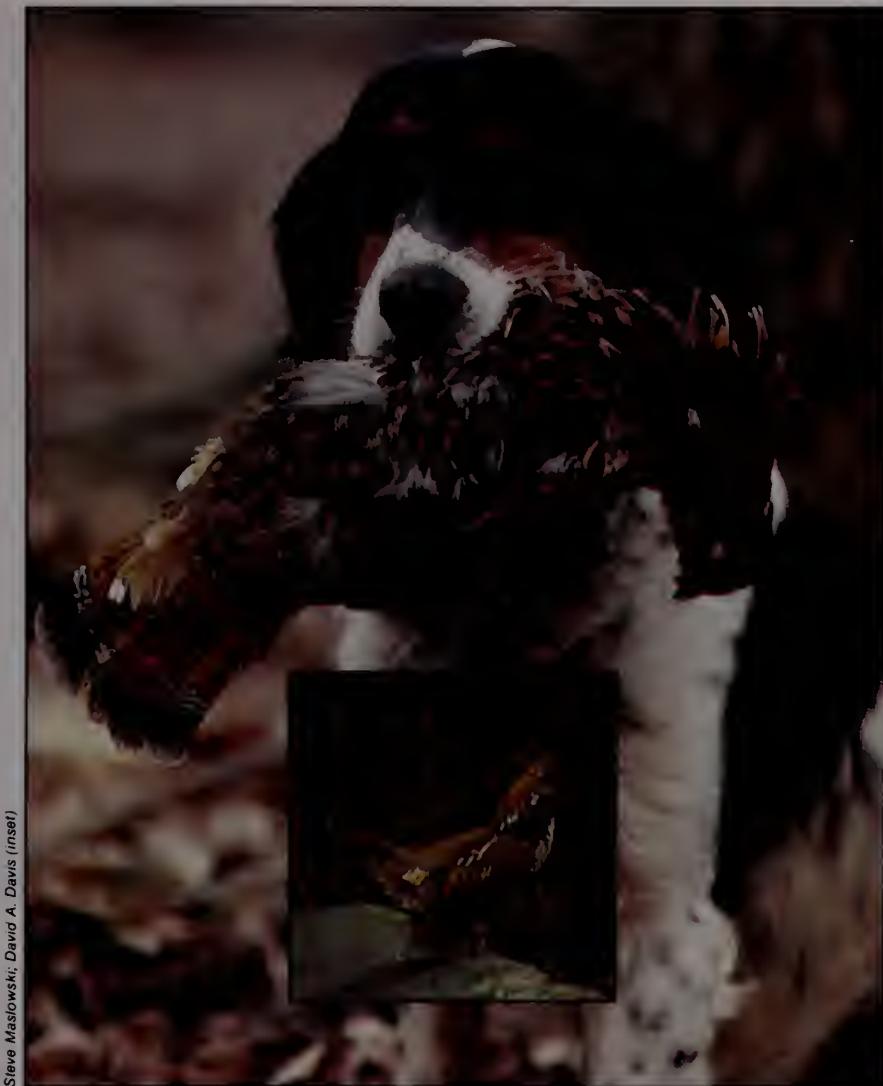
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Richmond  
Commission of





Steve Maslowski; David A. Davis (inset)

*"A good dog is absolutely essential," wrote John Rowan in 1876 of grouse hunting; an English setter will do nicely.*

# Ruffed Grouse Country

by Robert Alison

## Grouse hunting is deeply rooted in Virginia history

**T**here is something special about a Virginia autumn—an invigorating, intoxicating, almost magical quality that sets sportsmen's fancies afire. The splendid golds and rusts and yellows of the countryside combine in a final gala of color, a tribute to the passing of another glorious summer.

Everywhere, the hillsides are alive in flaming reds and sassy crimsons. Here and there, patches of vermillion sumacs glow like red-hot embers. And great stretches of lemony-leaved birches blanket the slopes across wave after wave of snaking foothills.



*Bonasa umbellus* drumming: taking position, beginning to drum, and in the "roll" portion of drum.

In the distance, rolling scrublands abound in curtains of tangled wild grape vines and heavily-laden thorn-apples. Now and then, a solitary old apple tree, its branches gnarled and twisted and weighted down in plump red fruit, towers above the mish-mash of meadow plants.

This is ruffed grouse country—among the aspens, the birches, the dogwoods and willows. It thrives here—equally at home on an alpine hillside or an open deciduous parkland. Of course, in Virginia it is normally a bird of the thick hardwoods. When people think of it, their minds automatically focus on the deep woods, thick in beech and birch and dogwood. But this gamebird is so adaptable that it is found just about everywhere.

The average hunter is not aware a grouse is nearby until, all at once, the ground explodes at his feet. In a thunderous roar of wings, a trim grey-brown form blasts upward, its detail lost in a whirlwind of leaves and ground litter. In a flash, it has made good its escape.

Even the experienced sportsman is taken by surprise. The suddenness of the speedster's appearance catches him off guard. At that first unexpected flutter, his heart skips a beat. Muscles seem to freeze. Legs and arms refuse to function. Eyes dart toward the source of the noise. But his body seems to be immobile, as if in a trance.

Sometimes, it's pretty embarrassing, watching helplessly, shotgun in hand, as one of these birds slices off into the distance. You can have hunted grouse for years, and still get stung. And, worse still, there is no saying that the next flushing will not produce the same effect.

It is an electrifying experience. And it adds to the heart-pounding thrill of hunting ruffed grouse. That is why it is such a popular game bird in Virginia—where over 85,000 are taken each year. Indeed, it explains why the bird is hunted in 33 states where over 3.7 million are shot annually.

And ruffed grouse hunting is not a new sport. Even the Pilgrims were impressed by the bird. Of course, they hunted it with nooses and sticks. But it impressed them nonetheless. Their records are full of references to it.

One of the first Europeans to mention the ruffed grouse was Captain Thomas Heriat. In 1586, he listed "partridges" as one of 86 species he found in the Chesapeake Bay area.

In 1607, Captain John Smith wrote about "partridges...a little bigger than our quails" he saw in the same region.

In 1656, Adrien Van der Donck reported that in Pennsylvania, "there are 'quartels,' differing from those in the Netherlands in the drumming."

And they must have been abundant then, since in 1698, Thomas Gabriel observed that near Norfolk, there were "an infinite number of...land birds...[such as] partridges." By 1748, people there had even learned how to take grouse eggs from the wild and raise chicks under hens.

"Partridges...may be so tamed as to run about all day with the poultry" wrote Peter Kalm in that year.

Even at that early date, grouse hunting was a popular activity. And, by the mid-1800's, it had a large and enthusiastic following.



photos by Nell Bolen

"The most comfortable way to shoot partridge is to drive slowly along a wood road," advised one old-timer.

But other methods were popular, too.

"It might be supposed," wrote John Rowan in 1876, "that anyone can go into the woods and kill as many partridges as he likes. A good dog is absolutely essential... a partridge dog which ranges the woods is an independent way... the beast knows his business. Finding birds is nothing... but the thing is to show them to his master, who is perhaps a mile off... He runs right into the middle of a covey. With a great whirr... they 'tree' all around him. He commences to bark and yell and howl... Be it long or short, five minutes or five hours, there he remains... When our sportsman arrives, he takes careful and deadly aim at the nearest bird... Charmed by the yelping of the dog, they remain chained to their perches until the single barrel has been again and again loaded and fired..."

Soon enough, grouse learned to be a bit more wary—at least, in some places. By 1917, Edward Forbush warned that "probably no one man has lived long enough to learn all its wiles."

And, about that time, another grouse enthusiast reported that "fortunately the bird has so capable a brain that a brief experience with the 'man behind the gun' serves to 'educate' it, and if it survives its first few experiences with flying shot it becomes quite another bird."

During the last half-decade, grouse seem to have become better and better at outsmarting sportsmen. The day of the noose is long gone—with a few local exceptions.

In 1944, Ray Holland warned that it "can be the wisest, cagiest game bird on the lists. He thrives today in the most heavily hunted covers because he is smart... you may see him for only a second or two, for he is a master at putting cover between himself and the gun."

Well, truer words were never written. Any grouse hunter will confirm it. The bird's uncanny ability to make clean escapes is now legendary. But that adds to the mystique, to the allure of the hunt. It embellishes the experience. It makes it deliciously attractive—a real challenge.

With all the fuss over ruffed grouse, naturally a great deal has been written about the bird. And a lot of bitter debate has resulted. People don't even agree on a suitable name for it. In the south it is called "pheasant"; in the east it is "partridge" or "birch partridge." Some people call it a quail. But it is surely a grouse. Of course, that distinction matters little to hunters.

Apart from its tantalizing, haunting drumming, another curious feature of grouse biology is its fluctuating population. In much of its range, it undergoes periodic high and low population levels—usually in regular 10-year cycles. Scientists are baffled by what causes these events. They have studied them for years—and are not even close to resolving the matter.

But a few interesting theories have been put forward. For one thing, it is apparent that before a crash can occur, the population must have peaked to some high level—often where "low-year" densities are surpassed by as much as 15 to one. In theory, then, if a peak did not take place, a crash could never occur. So biologists have surmised that in order to avoid devastating crashes, grouse populations must be held low—by increased hunting pressure. A sure sign that a grouse population is being under-harvested is a population crash.

So it is the job of game managers to hold grouse numbers at a high level, but below the critical peak where a crash is certain.

What about over-harvesting? It was the opinion of Dr. C.H.D. Clarke, noted biologist and game manager, that no ruffed grouse population could ever be over-harvested. It all had to do with the law of diminishing returns—where, at low population levels, it simply was not worth the trouble to go out after them.

For anyone wanting to improve his skills at hunting the bird, remember that long-time grouse gunners insist that the bird is very sedentary. That means that it can be found at just about the same spot year after year. It stays put. And that saves a lot of scouting around on the hunter's part.

Females are more mobile than males. But neither sex travels very far—no more than a quarter mile in winter, and scarcely more during the rest of the year. The only period of real movement is October, when broods are breaking up. Then about 50 percent of the juveniles travel up to one mile. A record was set by an immature grouse that went 12 miles in a month, but that was an exceptional case.

So scientists have a lot to offer sportsmen on grouse biology. For those who thirst for grouse, knowledge of the bird can be a tremendously helpful asset. Somehow it makes the sport of hunting them more enjoyable, more of a contest.

Of course, science cannot be expected to do all the work. A great deal of the effort must be put forth by sportsmen—for to really know the ruffed grouse takes years of hunting experience. □

# The Jerusalem Artichoke

Despite its name, this tasty wild plant is neither an artichoke nor did it originate in the Holy Land.

by Francis X. Sculley

illustrations by  
Cindie Brunner

**T**he stately plant that sometimes soars to a height of eight feet bears the impossible name of Jerusalem artichoke (*Helianthus tuberosus*) though it was unknown in the Holy Land until the 16th century. It is completely American, and was cultivated by all of the eastern Indians centuries before the coming of the white man. Presented to the Spaniards and French by the Native Americans, seeds of the plant were taken back to Europe and planted. The pleasant, nut-like flavor of the tubers appealed to most and for centuries the American wild sunflower has been a cultivated plant in much of Europe and Asia. It has declined in popularity and is not as widely grown as in past centuries.

Spaniards named the American import "girasol" and Italians called it "girasole" both of which translate to "sunflower." With typical aplomb, we anglicized the word to "Jerusalem." No one can account for the appellation "artichoke," as *Helianthus* no more resembles that plant than it does a kumquat.

Today roadways from Maine to Georgia are lined with the giant plants with the brilliant yellow flower heads. Sometimes this wild sunflower is found in profusion comparable to that of the dandelion. Escapees from cultivation, the modern artichoke may have had its origin in a colonial garden. The species is much more common in the 20th century than during Washington's time.

Whether through the efforts of Euell Gibbons and Bradford Angier or the general awakening of America to its vast source of wild foods, the

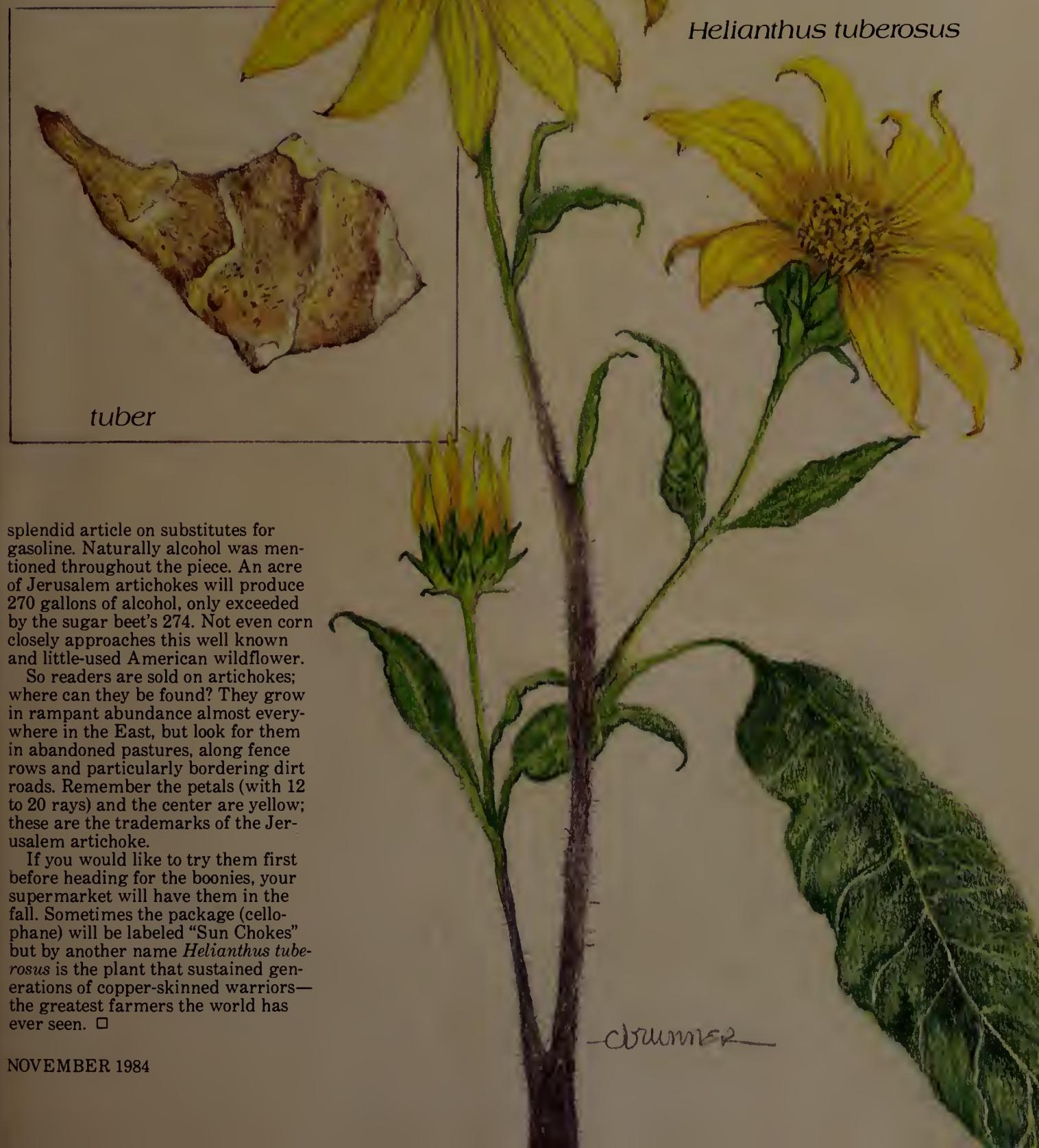
plant is undergoing an upsurge in popularity. Its warty-looking, oddly shaped tubers are now found in the produce section of most of the nation's supermarkets. Some enjoy the subtle sweet taste of the baked tubers, while others enjoy the crisp taste—akin to that of water chestnuts—of the raw vegetable sliced in a salad. The tubers are low in starch content and hence are ideal for those who are interested in shedding a few pounds. They are ideal for diabetics. They are dandy scalloped with bread crumbs and onions. I once sliced them and fried them with wild leeks. Their subtle taste was overpowered by the fiery little member of the lily family.

During the summer when the attractive plants are in flower, mark the location of large patches well. Do not attempt to dig the tubers while the flowers are at their peak—wait until autumn or early winter before digging your artichokes. For those who cannot tell a Jerusalem artichoke from a pond lily, here are a few rules to follow. The golden flower heads are sometimes three inches broad, and the stem's the height of an average NBA player (and even larger). The lance-shaped, three-ribbed leaves grow oppositely and usually there will be three or more flower stems at the peak of the plant. There is no way that one can go wrong on the Jerusalem artichoke.

Chokes can be gathered throughout the winter in Maryland, Virginia, the Carolinas and Georgia. In Maine the harvest season would be November at the very latest.

Recently, *Harrowsmith Magazine*, published in Canada, featured a

*Helianthus tuberosus*



splendid article on substitutes for gasoline. Naturally alcohol was mentioned throughout the piece. An acre of Jerusalem artichokes will produce 270 gallons of alcohol, only exceeded by the sugar beet's 274. Not even corn closely approaches this well known and little-used American wildflower.

So readers are sold on artichokes; where can they be found? They grow in rampant abundance almost everywhere in the East, but look for them in abandoned pastures, along fence rows and particularly bordering dirt roads. Remember the petals (with 12 to 20 rays) and the center are yellow; these are the trademarks of the Jerusalem artichoke.

If you would like to try them first before heading for the boonies, your supermarket will have them in the fall. Sometimes the package (cellophane) will be labeled "Sun Chokes" but by another name *Helianthus tuberosus* is the plant that sustained generations of copper-skinned warriors—the greatest farmers the world has ever seen. □

—Drummer

# *Where the Wild Goose*



*Virginia's snow geese (large photo) center on Back Bay National Wildlife Refuge and the Eastern Shore, sometimes flying out to feed on mainland fields. (Above) Row crop fields, such as those for corn and soybeans, are ideal locations for Canada goose blinds. (Right) Silhouette decoys are frequently used for snow geese wherever they are hunted.*

# Goes

**Canada and snow geese populations have made a dramatic comeback in this century, but southern gunners may still be wondering where they are.**

**story & photos by Joel Arrington**

**V**irginia goose hunters are enjoying one of this nation's greatest achievements in wildlife management. The resurgence of Canada and snow goose populations from dangerous lows in the 1930's ranks with the return of whitetail deer herds and wild turkey flocks among the stellar accomplishments of modern game husbandry.

Professional waterfowl managers are the first to acknowledge the part played by changes in world agriculture that resulted in rising grain prices and the decline of truck farming in North America. After World War II, extensive new acreage was converted to corn and soybeans, beginning a nationwide revolution in farming that continues today. Ironically, harvesting efficiency meant more spilled grain, and nearly all these new fields and giant new farms were located smack in the middle of goose wintering grounds across the central and eastern parts of the country.

So changing farming practices took care of the winter food supply for a now-burgeoning population of waterfowl that was being produced on breeding grounds in the north. Fortunately, those breeding grounds were—and still are—pristine: the tundra and boreal forests of eastern Canada where the Atlantic Flyway's Canada geese nest, and the areas above the Arctic Circle where the greater snow geese breed, have escaped the environmental degradation that some waterfowl breeding grounds have suffered as a result of man's encroachment. Other waterfowl species have not been as fortunate, although wildlife managers and hunter-supported groups such as Ducks Unlimited did their part (and continue to) to reverse or slow this trend.

But that wasn't all wildlife managers did with the support of hunters. They saw to it that laws were changed—and strictly enforced—to prohibit, at first, market hunting, later spring hunting and hunting with live decoys. Regulations were progressively imposed on hunters (with the support of hunters) to control the harvest of growing waterfowl populations.

The upshot of all this today is goose hunting of a quality our grandfathers must have dreamed about. Professionals like Fairfax Settle, wildlife biologist for the Virginia Commission of Game and Inland Fisheries, are happy with both the short-term and long-term prospects for goose hunting in the state. "It's picking up all the time," he said.

Virginians can only complain that it isn't better distributed. There are huntable populations of Canada geese primarily in the east. The James, Rappahannock and Pamunkey Rivers harbor a flock that offers perhaps more hunting opportunity for more people than any other in the state. Across the Bay, the two Eastern Shore counties of Accomack and Northampton receive a spill-over of Canada geese from the prosperous Delmarva flock to the north, a flock that is growing beyond the ability of its winter habitat to support it. Consequently, more liberal bag limits and season lengths are in effect on Virginia's Eastern Shore than elsewhere in the state.

In the fifties and early sixties, the goose hunter of means, the hunter who could go anywhere he chose in pursuit of Canada geese, went to Lake Mattamuskeet in North Carolina. That population declined, as we shall see, while at the same time flocks were building on the Delmarva Peninsula. They grew to such an extent that

goose hunting became big business. Many locals saw the money that could be made guiding sportsmen from the big metropolitan areas across the Bay. Goose hunters proliferated. To attract increasingly wary geese today, some guides resort to elaborate blinds, huge decoy spreads, decoys as big as Volkswagens. Some even use spreads of scores of mounted birds. The more successful guides run relays of paying hunters through productive pit blinds four at a time, shooting their limits.

**O**n the lower peninsula, hunting is not like that. There is good hunting opportunity on Virginia's Eastern Shore, but nothing like the number of guides in Maryland and Delaware, and nothing like the number of birds or the assembly line process of goose hunting.

In western Virginia, there is a small Canada goose population in the South Holston Lake area, the result of stocking there years ago as part of the TVA project that constructed the reservoir, but it is a small flock. In addition, a great number of resident birds are scattered across northern Virginia on ponds and small private lakes, and they in turn attract migrants in fall and winter. These flocks are hunted hard by locals on private property, and for all practical purposes, are inaccessible to the hunting public.

Formerly there was a sizable flock of Canadas at Back Bay, but only a remnant population remains, the result of a phenomenon every waterfowl hunter is familiar with called short-stopping: a goose will migrate only as far as it must. This is an over-simplification, but it is true to a large degree and it lies at the heart of short-stopping. Given sufficient food and refuge, most geese tend to remain as far north in their traditional wintering range as weather permits. Freeze-ups will move them, but apparently hunting pressure has minimal effect. Consequently, the center of both Canada goose, and, more recently, snow goose winter range has shifted progressively north. The result, even at a time when continental populations are at record highs, is the drastic loss of wintering birds (and even goose hunting seasons in some cases) from Florida to Virginia. Back Bay geese are part of the North Carolina flocks that in recent years have diminished so alarmingly.

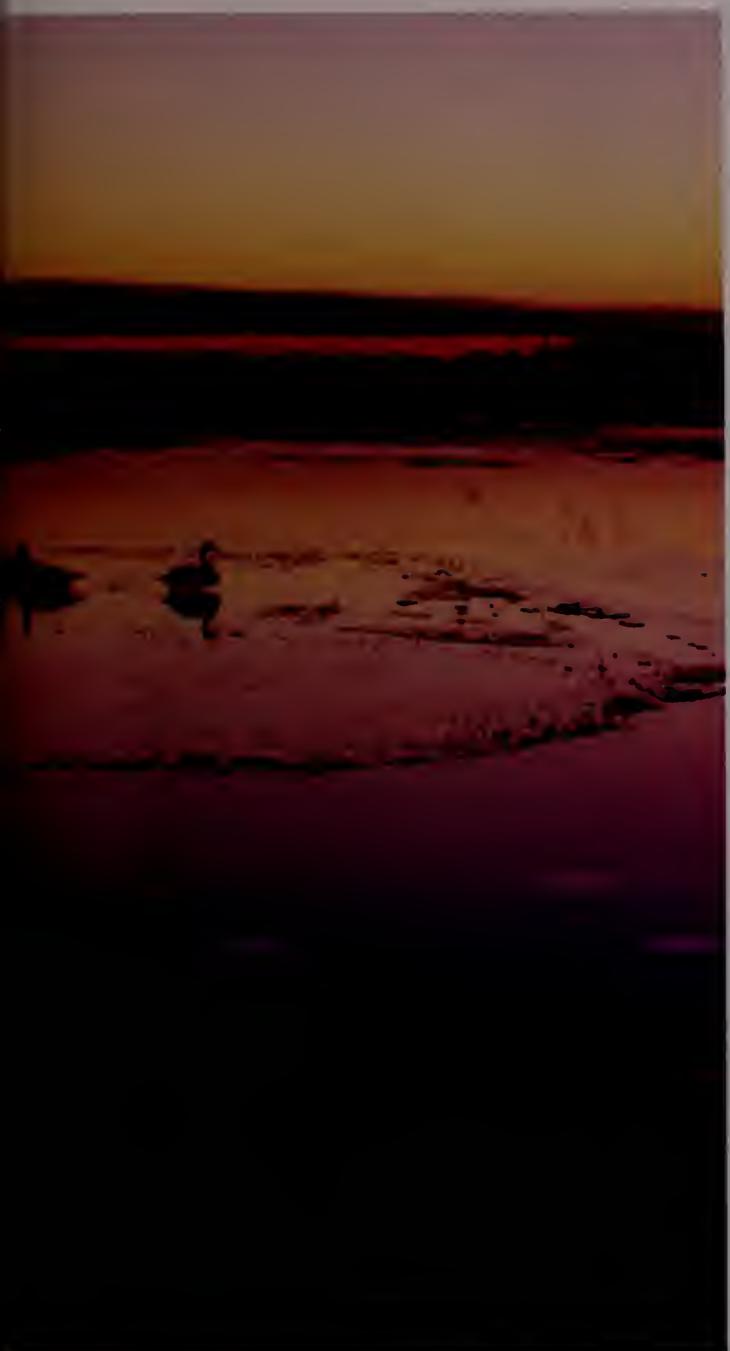
Some waterfowl biologists have a theory that geese, being creatures of family units, become imprinted on their first fall flights south with parents and siblings with the instinct to seek migratory destinations. Once a young-of-the-year goose makes its first flight with its peers to say, the St. Marks National Wildlife Refuge in northern Florida, it will continue to do so year after year. However, the theory goes, if hunters up the flyway shoot most of these young birds—birds that might become imprinted with the desire to fly to St. Marks—before they can make the first trip, then the St. Marks flock will diminish as older birds die off.

As Canada goose populations increased in the more northerly states along the flyways, naturally there was pressure to lengthen the season, open it earlier, and increase bag limits. That, in fact, happened. Now hunters in southern states complain that too many young birds are being killed before they have any opportunity to migrate south and become imprinted with the instinct to continue that pattern. Veteran hunters and waterfowl



managers know that young birds—young of the year, especially—make up the vast majority of geese killed every season. Older birds are much more difficult to fool.

So this, and other questions about Canada goose behavior are being probed with an extensive tagging study presently underway in many states across the nation. Hunters frequently see birds with leg bands. This season and for subsequent years, they may see many birds with colorful neck collars as well. It is hoped, of course, that, if the imprint theory is proven correct, and early seasons in the more northerly states are shown to contribute to the short-stopping problem, waterfowl policy makers in those states and the U.S. Fish and Wildlife Service can be convinced to delay starting their seasons a week or two and perhaps tack those days on at the end.



*Impoundments that inundate grain can be especially attractive to Canada geese.*

instead.

Fairfax Settle estimates that waterfowl hunters in Virginia number fewer than 20,000. Only a fraction of these are snow goose hunters, for several understandable reasons. First, there is not now and there never has been a big tradition of snow goose hunting. Only in the last 10 years or so have snows been legal game in Virginia after about 30 years, over which populations were building from low points in the 1930's. Second, there are not nearly as many snow geese to hunt, compared to Canadas, although populations are at or near record levels.

They are very different birds. While Canadas are intelligent and wily, they are partly predictable, somewhat decoyable. They respond to hunter skills such as setting proper decoys, building good blinds, calling and concealment. Greater snow geese, on the other hand, are much less responsive to anything a hunter can do. They will sometimes decoy if your set is large enough—never mind how realistic the individual decoys are. A snow goose seems to be single-minded in purpose. If it is on the way somewhere, there is little you can do to attract it to your blind. But if it happens to want to come there, you almost can't spook it off. Like Canadas, they are impressive in appearance—white with black wing tips—and flocks sometimes number in the thousands.

**V**irginia's snow geese center on the Eastern Shore and Back Bay. Settle said there has not been much change in the flock for two years, but just as Canada geese did over the last 40 years, many snow geese throughout the flyway are beginning to prefer field crops to their native diet of marsh plants. Consequently, they are beginning to cause some crop depredation, particularly in winter wheat. Still, a significant proportion of snows feed primarily in marshes and in some areas, Settle said, they are destroying the marsh habitat which the hard-pressed black duck desperately needs. "The population is too large relative to the ability of the marsh to support it," he said.

Greater snow geese, not to be confused with the lesser snows of more westerly flyways, are also beginning to winter farther north. North Carolina and Back Bay flocks have diminished these last few years while those of Delaware, Maryland and New Jersey have grown. But overall, greater snow geese are in good shape. They nest high in the Arctic, out of reach of severe encroachment by man. Timing and amount of snow melt determine nesting success more than anything. "In the long term," Settle said, "snow geese look good."

On the surface, goose hunting seems like a simple matter. You get up early in the morning, set decoys before daylight, freeze in a hole in the ground, call birds in, shoot a few and go home. In reality, of course, there is much more to it than that. Books have been written about it as have countless magazine articles. Just learning the proper rhythm, intonation and phrasing required for effective calling can take a lifetime. These days you can get tape-recorded instruction which speeds learning, and the following books will give you a leg up on the other hunting skills: *The Wings of Dawn*, by George Reiger, Stein and Day, 320 pages, \$29.95, Heron Hill, Locustville, VA 23404; and *Goose Hunting* by Charles L. Cadieux, Stone Wall Press, 197 pages, \$16.95, 8209 Harwood, NE, Albuquerque, NM 87110. □

# Wildlife's Rip Van Winkles

by Terry Kerns  
photos by Leonard Lee Rue

*There are only a few animals in Virginia which are true hibernators. But several species spend their winters in some form of deep sleep. Each has its own way of coping with the lack of food, and all undergo changes in their metabolisms to see them through the season. The chipmunk stockpiles food in advance; it retreats to its burrow to sleep for days at a time, and awakens occasionally to nibble at its stores. The black bear and woodchuck don't eat all winter; they're sustained by a heavy layer of fat, the result of pre-season bingeing. The bat is accustomed to hibernation; besides its annual winter retreat, it undergoes similar metabolic changes on a daily basis.*



*Winter makes some of us want to curl up in a ball and sleep through 'til spring. That's exactly how some wildlife species make it through this season of harsh weather and scarce rations.*



The chipmunk scampering along a rock wall and the woodchuck nibbling spring-green grass share a common bond. They are two of only a handful of mammals found in Virginia that spend the winter hibernating.

While the rabbit and fox struggle to find food and shelter in the deep snows and freezing temperatures, the chipmunk and woodchuck sleep away the winter. Their sleep, however, is not just a longer, deeper version of their normal rest.

Instead, their winter sleep is marked by drastic changes in their respiration, heart rate and body temperatures. It is these changes, rather than just passing winter in sleep, that wildlife biologists use to define true hibernation.

In the strictest sense, only the woodchuck, the jumping mouse and the bat are true hibernators. These three animals must have time to warm up before they can wake up. This slow process is a mark of true

hibernators.

However, four other animals are usually included among hibernators. The chipmunk, black bear, skunk and raccoon are all deep sleepers, although they wake rather quickly.

Although these hibernators are mammals, their winter sleeping behavior more closely resembles that of cold-blooded animals than their warm-blooded relatives. The woodchuck, for instance, is able to lower its body temperature from its normal 96

to 100 degrees down to 40 to 60 degrees. Its heart rate drops from 80 beats a minute to only four or five and its breathing rate slows just as dramatically.

The hibernation process actually begins for the woodchuck in late summer. It begins with an eating binge that results in thick layers of fat.

The woodchuck, however, quits eating altogether in the fall before it actually crawls underground for the winter. This pre-sleep fast allows time for its digestive system to empty.

**W**ith the advent of colder temperatures, the woodchuck crawls down his burrow into an underground chamber lined with dried grass. It plugs the entrance to the chamber to avoid being disturbed by the rabbits, skunks and other animals that may share his tunnel.

The woodchuck's sleep will be interrupted occasionally. While it is able to reabsorb most wastes, the woodchuck does build up toxic levels of some wastes in its system. Every week to 10 days, an "alarm" sounds within the sleeping animal. A few seconds of deep breathing allows it to clear away the wastes and go safely back to sleep for another week.

The same type of alarm awakens the woodchuck if its body temperature begins to drop too low. The resulting increases in heart rate and respiration raise the body temperature back to a safe level.

As warmer weather returns, the woodchuck's body begins a series of adjustments that will bring it out of the deep sleep. The heart beats at an increased rate. Blood vessels, constricted during hibernation to maintain blood pressure, begin to dilate.

The vessels surrounding the heart, brain and lungs are the first to enlarge. As these vital organs begin to warm and function at an increased rate, the process spreads to other parts of the body. The hind limbs are the last to return to normal. The process can take several hours before it is complete.

The animal that emerges is not the slimmed-down version one might expect. The slowing of bodily functions and the failure to eliminate solid or liquid wastes leave the woodchuck weighing almost as much in the early spring as he did in the late fall. However, the woodchuck will use his stores of fat until new shoots emerge for him to eat. As a result, he will lose

30 to 40 percent of his weight within a few weeks of awakening.

Unlike the woodchuck, the chipmunk does not put on a heavy layer of fat before going to sleep for the winter. Instead, it spends the late summer and early fall building up stockpiles of seeds and nuts in its burrow.

A chipmunk's burrow is an ever-expanding tunnel connecting a number of chambers. The main chamber, the one in which the chipmunk will curl up for the winter, is also the main storage site for the winter food supply. Extra food will be stored in other nearby chambers. One chamber, usually at the deepest end of the burrow, will be reserved as a "bathroom" by this fastidious animal.

Once the temperature begins to drop below 50 degrees, the chipmunk will retire for the winter. Lacking the woodchuck's layer of fat and its ability to make such drastic changes in its bodily functions, the chipmunk must interrupt its sleep every few days to nibble on the stores of food it has accumulated.

The chipmunk's respiration rate, its heart rate and its body temperature all drop below normal during this sleep-and-eat period, but not to the same degree as the woodchuck's. As a result, the chipmunk is able to awaken much more quickly come warmer weather. In fact, it will often awaken in winter and poke its head above ground, even if it means pushing through the snow.

**T**he black bear's hibernation is a cross between that of the woodchuck and chipmunk. The bear puts on a heavy layer of fat like the woodchuck but quickly awakens like the chipmunk.

The bear's body temperature drops only seven or eight degrees during hibernation. Its heart rate shows a more dramatic change, slowing from the normal 40 to 50 beats per minute to a leisurely eight to 10.

In many ways, the bear resembles true hibernators. It neither eats nor drinks during the winter sleep. It does not urinate or defecate and its body maintains proper water balance by absorbing urine that is produced.

The hibernating bear can wake rather quickly if disturbed. While it may lose a greater percentage of body weight during winter than the groundhog since it maintains a higher body temperature, the lean bear of late spring is as much a product of the scarcity of food in early

spring as it is hibernation.

The caves that often provide a winter's rest for the bears are also the favorite spot for hibernating by bats. Bats are unusual in that they make the same adjustments to their metabolism each day as they do while hibernating in winter. The body temperature of a bat drops during the day when it is resting just as it does when hibernating.

Caves are ideal locations for hibernating bats since they provide a range of constant temperatures and humidity. Different species of bats use the same cave, each seeking out a particular area within the cave. Since the deeper one goes into a cave, the lower the temperature and the higher the humidity, a single cave can provide several different environments, each suited to the needs of a different species.

**W**hile the bats sleep throughout the winter, skunks and raccoons often awaken and take a mid-winter's stroll. Although these animals are often referred to as hibernators, their long, deep sleeps lack many of the traits a scientist would use to define true hibernation.

The body temperature, for instance, of the skunk and raccoon remains at normal levels during their sleep. Their heart rate also remains constant. Both animals put on an extra layer of fat for winter but venture forth for additional food during warm spells.

Both animals leave their tracks in the snow, especially in the latter part of winter when the breeding season is at hand. The raccoon's trail will often lead to a favorite winter den, a hollow in a large tree. The skunk, on the other hand, often shares the groundhog's burrow during the winter.

These hibernating animals may offer more than just another intriguing mystery of nature. Scientists study them to discover the secrets that allow them to maintain life while respiration and circulation slow drastically. If man could understand the process, the benefits could be enormous. New opportunities in medical treatment and space travel are only the most obvious benefits.

However, for the hunter, trapper or anyone else who loves the beauty and diversity of nature, hibernation already provides tremendous benefits. Without this adaptation to winter, Virginia's fields and forests would be void of these interesting animals. □

# How the Smallmouth came to Virginia

A history of the first stocking  
of "black bass" in the Old Dominion.



story & photos by Harry Murray

*The Blue Ridge; it was through these mountains that the early bass came to Virginia. (Inset photo) "Grandad"—W.R. Murray—with that first bass he caught in the Old Dominion.*

**G**randad knew the Pitman boys of Red Banks and I know he was proud that all 10 of them served in the Confederate Army. But as he landed that beautiful 5-pound, 14-ounce bass on their farm from the North Fork of the Shenandoah River in 1914, I'm sure a certain railroad trip which occurred less than 10 years before the boys went to war was more meaningful.

Had this unusual train ride never occurred, quite possibly there would have been no bass in the Shenandoah for which to fish. Though we have always had bass in the rivers which drain westward from our state, the rest of our rivers were not so fortunate. Fontaine, the historian of the Spotswood expedition, says: "I got some grasshoppers and fished; and another and I, we caught a dish of fish, some perch, and some a fish they called chub." He wrote enthusiastically of the fish and wildlife the "Knights of the Golden Horseshoe" found in the Shenandoah Valley, but neither he nor other historians talk about bass in these waters.



An old Payne fly rod and Hardy reel with early bass tackle.

affinity for fishing in specific locales but was controlled by the proximity of the towns or cities to the rivers and the transportation available. The tackle I was seeking was of the horse-and-buggy era.

Though today we think nothing of driving 200 miles to fish our favorite stream and return home that evening, this would have been impossible at the turn of the century. A ten-mile trip out and back in a horse and buggy was as far as the average angler ventured. Naturally, railroads helped, but often their schedules did not coincide with the moods of the fish and the fisherman.

I found most of the impressive tackle collections in towns located right on the good rivers, and if there happened to be a feeder stream close by, that meant more tackle.

By the time bass reached the Shenandoah, James, Rappahannock and other eastern rivers, much of the tackle refining had been done by our neighbors in Kentucky. Just as the smallmouth bass himself was a native of the new world, so was the bait casting reel.

George Snyder, a watchmaker of Paris, Kentucky, built the first casting reel between 1800 and 1810. These "Kentucky" quadruple multiplying reels were custom-made and quite expensive. Snyder made them on a limited basis and never did go into large production on them.

Jonathan Meek, another Kentucky watchmaker, saw the potential for expanding his business into this area. In 1840 he formed a partnership with his brother Benjamin to produce the reels for the market.

In 1854, Mr. William Shriver of Wheeling, West Virginia solicited the help of Mr. A.G. Stabler, a conductor on the Baltimore and Ohio Railroad. Had Mr. Stabler himself not been a fisherman, there is a good chance he would have turned down Mr. Shriver's request to have 30 bass "bum a ride" on his train.

As it turned out, Mr. Stabler was extremely helpful. Together they took the small bass from Wheeling Creek, where they occurred naturally, and placed them in a large perforated tin bucket which was made to fit the water tank on the locomotive. At each regular water station between Wheeling and Cumberland, Maryland, fresh water was added. The fish arrived at their new home in excellent condition. Mr. Shriver placed them in the basin of the Chesapeake and Ohio Canal, from which they had free egress and ingress to the Potomac River.

From this meager start the bass spread quickly throughout the Potomac River and its tributaries. By 1865 there were confirmed reports of excellent bass populations 200 miles upstream in the Potomac River and far up the Shenandoah River. That they thrived as well in their new home as they had in the Ohio drainage is shown in a letter written by Mr. Edward Stabler (the conductor's father) in 1865. He states to Mr. G.T. Hopkins, of the Board of Water Commissioners of Baltimore, that considerably upstream of the original point of stocking he had recently caught several bass weighing five to seven pounds, and bass in the four- to five-pound range were not unusual.

Various states and federal agencies as well as other private individuals were instrumental in spreading the bass throughout Virginia from this point on, but anglers today—as well as in Grandad's day—should be very grateful for Mr. Shriver's initial effort.

Several years ago I put together four separate museum displays of fishing tackle for the 1976 Bicentennial celebration. I was constantly amazed at the abundance of really first class old tackle which surfaced from some quite small towns. At the same time, I was disappointed by the few items which I was able to locate in some of the more densely populated areas.

Finally I realized this had little to do with the sportsman's

From their home in Frankfort they sold reels to anglers from all over the East. Later Mr. B.C. Milam was taken in as an apprentice and through experiments and refinements, the Meeks and Milam produced what was considered the reel *par excellence* for smallmouth bass angling. The demand increased until they found a ready sale for all they could produce.

Many of these masterpieces found their way to Virginia bass waters, but some of our anglers who either found them too expensive or had not heard of them, chose other systems of line control.

I found that many of our early bass fishermen adopted what might be referred to as a modified "Nottingham" system. I do not know if this was handed down from their English forefathers, due to its popularity there, or if they hit on it by chance, but it was widely used here in Virginia.

The basic system, as normally practiced in England, utilized no reel at all, or only a very simple wooden reel for line storage. Just as our early politicians chose to buck the King, our anglers chose to change this system.

They used small inexpensive reels, many of which were taken from the trout fisherman's arsenal, on which the line was stored before casting and with which the bass were fought and landed.

Once one was ready to cast his baited hook out into the river, the line was pulled from the reel and through the guides by hand and placed in coils at the fisherman's feet on the bank. The angler would grasp the line several feet above the sinker and baited hook, and give it two or three whirls around his head. Experience would teach him just when to release it, and with practice and a good heavy sinker, amazing accuracy and distance could be achieved.

This system was used for a long time by anglers who did not have the proper tackle or skills for casting "off of the reel." I can remember as a youngster growing up on Stoney Creek seeing the "old timers" at the creek bank, four or five bass rods sitting in front of them supported by forked sticks, waiting for a bite. The rods were always in a neat row with space carefully left between them for "coiling the line," as Pap Carter called it.

Some of these small, single-action reels, as well as their larger salmon fishing counterparts, were used in fly fishing for bass. Early colonial trout and salmon fishermen had pretty well gotten the bugs out of this system and our bass anglers simply altered the flies to fit their needs. Though many of the early bass flies I found were really works of art, they were basically overgrown trout flies.

Our early bass anglers used fishing rods built from a broad selection of materials and in a variety of lengths. I found them hand carved from center cut hickory at five feet

long to split Calcutta bamboo at 12 feet long. The former is rather crude in appearance but is quite serviceable. It was given to me by Jake Sheetz of Edinburg who said his great grandfather made it about 1870. The latter, a rod of great beauty, was built by Frederick K. Malleson of Brooklyn, New York in 1886. The glue joints, exquisite handle and reel seat are still in excellent condition. Except for some deterioration of the silk wraps on the tiny tube guides, the rod would be usable today.

Cane pole-type rods of 10 to 12 feet with guides wrapped crudely into place were popular for the "Nottingham" system of fishing as was the much more elaborate "Henshall rod." The original Henshall rod was eight feet, three inches long with a butt section of white ash and the rest of the rod of Lancewood.

Though the Kentucky reels were capable of casting as we know it today, these early rods were a disappointment in that area.

The shorter "Chicago rods" started showing up on our waters in the later 1890's and this coupled with James Heddon's first plugs in 1896 opened the door to artificial plug casting for bass as we know it today. These rods were stiffer than those we presently use for bass, but few, if any of today's rods will touch them in beauty. One which was found in Woodstock, Virginia was constructed by James Payne of Highland Mills, New York. The quality of imported bamboo, nickel-silver ferrule, cedar reel seat and painstaking workmanship are impeccable.

The same rod builder also crafted early bamboo fly rods for bass fishing which found their way to Virginia. Most of these are about nine feet long and weighed seven to eight ounces. I recently used one of these coupled with an early English salmon reel made by Hardy Brothers of England which found its way to our bass rivers, and was very impressed. The combination was extremely accurate in fly placement and was quite pleasant to use.

We have seen many refinements in bass tackle recently, but I'm sure with all of this, I have never landed a bass which gave me any more pleasure than the one Granddad landed at Red Banks over 70 years ago gave him. □



An assortment of old bass plugs.

# Those Were the Days

A biologist  
sees and hears a lot at  
check stations during hunting seasons.

by C.H. Shaffer  
illustrations by Jack Williams





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**O**ne of my favorite assignments as a wildlife biologist for the Commission of Game and Inland Fisheries was to work at a hunters' contact station on the opening and closing days of the deer season. After years of working at check stations across the state, observing the amusing and the bizarre, I learned to expect almost anything.

One day, for example, an excited hunter drove up to my station on Cole Road on the Big Levels Federal Wildlife Refuge. He breathlessly reported that he had seen a black angus bull running up a rocky cliff near Sherando Lake, apparently having strayed from a nearby farm. But since no one ever reported a lost bull in that area, I decided that what he had actually seen was a black bear!

Several years later, at the same station, a disgruntled hunter got out of his car, cursing loudly. Trying to be cheerful, I asked him if he'd bagged a deer. Sprinkling his language with some unprintable expressions, he grumbled that he'd killed a "lousy, no-good turkey." Wondering why he was so irritated, I told him that if I had gotten a turkey, I'd be pleased. In reply, he moaned that his scrawny turkey hen would probably cost him about five hundred bucks. I asked him if the park rangers had caught him hunting illegally on the adjacent Blue Ridge Parkway. That wasn't the problem. He explained that he had flushed a large flock of turkeys out of a grape thicket high up in the mountains. He had shot at, but unfortunately had only crippled, that sorry looking turkey. The bird had a broken wing, but apparently could still run like a race horse. Our hero had run after that hen up and down the ridges and hollows until he was puffing and panting like an ancient steam engine. At the point of extreme exhaustion, the hunter had finally caught up with his turkey, made a desperate dive and captured it. He soon discovered, however, that something vital was missing from his anatomy: in all the excitement of the chase, our friend had somehow lost his false teeth somewhere back in the hills. He searched for hours in acre after acre of freshly fallen autumn leaves, without success. He figured it would require at least five big ones to replace his store-bought choppers, hence the price tag he attached to that "lousy, no-good turkey"!

It was always interesting—and amusing—to note the disbelief on hunters' faces when we weighed their animals. The hunter who had struggled and dragged a big buck through rugged mountains or swamps back to his vehicle swore that our platform scales were wrong. The animals invariably weighed anywhere from 50 to 100 pounds less than the hunter believed. Incidentally, the heaviest deer I ever weighed, out of the thousands I checked, was collected in western Rockbridge County. The huge ten-point buck weighed 276 pounds before it was field dressed.

One beautiful fall day an irritated hunter brought a spike buck to our check station on the Buckingham-Appomattox State Forest. He was angry because his yearling deer was small with spikes about six inches long—not exactly a trophy that gave him bragging rights! I reminded him that no one had forced him to shoot that particular deer. Then he asked how many times we fed our emaciated animals. I told him that originally we fed our deer three squares a day, but following a budget cut, we had been forced to eliminate

breakfast!

Not all my experiences were humorous, of course. Some of them were strange, even bizaare. I had occasion to observe some unusual specimens. Without a doubt, the most unusual deer I ever checked was taken from Upper Brandon in Prince George County. She was a three-and-a-half-year-old doe that had given birth to fawns and was still lactating. Yet, on the left side of her head she was sporting a forked antler covered with velvet.

During my career I saw two pure albino bucks. One was a magnificent eight-pointer killed on the Buckingham-Appomattox Forest near the Appomattox River. The other was a yearling with 10-inch spikes harvested in Halifax County. We have observed numerous dappled deer which often were marked like pinto ponies.

Still other experiences were simply no fun at all. One such day I recall involved a rather touchy situation in terms of "public relations," and it went from bad to worse. About 30 years ago, the Commission decided to hold an experimental, either-sex deer season on the Cumberland State Forest. In those days, doe seasons were rare, held in only a few isolated counties, and it was an emotional issue. Most sportsmen then did not understand the rationale behind harvesting female deer; some were downright antagonistic about it, and made their feelings plain.

A colleague and I received the choice assignment of operating the only contact station on the Cumberland Forest that day. We were required to check the hunters in and out, and also to examine the deer that were brought to us by successful hunters.

To our surprise, a horde of some 1,500 deer hunters arrived that day to hunt those 17,000 acres of forest land. Even though the sportsmen had presumably checked in to hunt either sex, we detected a strong undercurrent of opposition to the opening of the doe season. There was persistent mumbling and grumbling from hunters at the station throughout the day. Since we were the only representatives of the Game Commission present, we bore the brunt of their wrath.

One part of our job that day made the situation particularly tense: we had been instructed to collect embryos from the mature does to sample their breeding success. As more and more does were brought to the station (we eventually checked 75), a number of unhappy hunters stood around complaining, criticizing and cursing. I fully expected that, in their mood, they would soon be melting the tar and getting the feathers out of the pillows. Everything reached a frightening climax at high noon. An elderly gentleman drove up in a pick-up with his two sons; they had three adult female deer. At about the same time, most of the unsuccessful and unhappy hunters had accumulated at our station for lunch.

It was my duty to remove the embryos in front of the displeased crowd. To illustrate how badly my luck was running that day, I soon discovered that each of the does was carrying twins. Amazingly, all six of those little organisms would have been bucks! The odds of six males out of six were staggering. The time was ideal for the hanging tree, tar, and feathers for two poor wildlife biologists. In the midst of the ensuing furor, an acquaintance of mine from Nottoway County asked me to explain one



***"Originally we fed our deer three squares a day, but following a budget cut, we had been forced to eliminate breakfast!"***

more time to that hostile crowd, how that doe season was benefitting the deer—and deer hunters—of Virginia!

I survived another frightening experience at a hunters' contact station on Big Levels. At three a.m. I arrived to issue ten doe permits on a first-come, first-served basis during an experimental doe season. The only problem was, when I arrived at my lonely outpost, there were already over 700 incensed deer hunters clamoring for one of those ten doe permits! Once again, I had to do some fast talking.

One morning, as I checked squirrels and squirrel hunters on Philpott Reservoir, two young hunters arrived at our check station. One of the fellows was quite abrasive and talkative. He kept bragging that he had killed twice the number of squirrels as had his hunting companion. When we asked him how many he had bagged, he emphasized that he had downed eight bushytails, while his buddy had gotten only four! When we showed him the game law digest, noting the six-squirrel bag limit, he suddenly turned red and shouted, "Did you know fellows, I'm the biggest liar in the whole State of Virginia?"

I have never had the pleasure of actually observing the phenomenon, but it is not too uncommon for novice hunters to bring in turkey buzzards to the contact stations thinking that they have killed wild turkeys. In my files is a picture of two fellows holding a large turkey vulture between them. Their noses were turned away from their trophy, for obvious reasons. The caption said that the large five-pounder had been collected just in time for

#### Thanksgiving!

One spring day I was guiding three gobbler hunters in the Blue Ridge Mountains of Amherst County. Late that morning, I called in three adult tom turkeys which came strutting in together. Despite a barrage of shotgun blasts only one of those magnificent gobblers went down. Later, we stood around admiring the large bird and relived the exciting experience. Assuming that the gobbler was dead, I picked it up to carry it back to our vehicle. Suddenly I discovered that I had a tiger by the tail: that big tom had been playing possum! He flopped and fluttered so violently that he succeeded in kicking my grip away from his legs. Immediately a sharp spur painfully lodged in the palm of my hand, while the old boy continued his frantic gyrations. Eventually I was able to free myself from that vengeful tom, but not before he had gored a wound in my hand that later required five stitches from a surgeon's needle.

We carried the brave gobbler to a local hunters' contact station. He weighed exactly 17½ pounds. My companions returned to their home in the Valley of Virginia, while I rushed to a Lynchburg hospital.

The following week I received a letter with a clipping from a Valley newspaper. A photo showed our hunting party and their Amherst County gobbler. The accompanying story reported that the tom turkey had weighed a record 23½ pounds. That darned dead bird had gained six pounds while crossing over the Blue Ridge Mountains! □

# November Journal

## About The Authors

Although Curtis Badger is now a resident of Maryland, he lived on Virginia's Eastern Shore until recently. Formerly of the Eastern Shore News, he's freelancing full-time now; his articles appear regularly in *Virginia Wildlife*. Helen Inge's work has appeared in *Virginia Wildlife* and other publications; she is an award-winning photographer and a resident of Blackstone. Robert Alison of Canada is a retired wildlife biologist. His article "Virginia's Wildlife Legacy" appeared in the November 1983 issue. Francis X. Sculley is a frequent contributor to *Virginia Wildlife*; edible plants, where to find them and how to prepare them, are his specialty. This is Joel Arrington's first appearance in *Virginia Wildlife*, and we hope the first of many. A resident of Raleigh, North Carolina, Joel's articles and photos grace the pages of *Wildlife in North Carolina* on a regular basis. West Virginian Terry Kerns is a former newspaper editor whose articles have appeared in numerous magazines, including *Early American Life* and *Wonderful West Virginia*. Terry holds a degree in biology and was a public relations officer for the West Virginia Department of Natural Resources. C.H. "Kit" Shaffer is a biologist, formerly of the Virginia Game Commission. Now that he's "retired" to his home in Lynchburg, he writes for us—and other publications—on a frequent basis. Harry Murray has become a regular "fixture" in *Virginia Wildlife*; his usual topic is fly fishing, at which he is considered a master and perhaps Virginia's best instructor. Bill Cochran is outdoor editor for the Roanoke Times-World News and has also written for *Virginia Wildlife*, most recently in the May issue with "Small Fish, Big Fun." □

## Which Rabbit is Which?

In the October issue, in "A Different Kind of Rabbit," our caption on page 8 had the rabbit skulls transposed. The eastern cottontail skull is on the right, the New England on the left.

## 19th Annual Thanksgiving Window Watch Bird Count

Thanksgiving is traditionally a family day. Why not have the family enjoy one hour watching your bird feeder and listing the birds that visit the feeder during that hour on Thanksgiving Day? We invite you to join scores of families in Virginia (and other states) as they work individually to gather information on the occurrence of birds around their feeders. The information you submit will be stored in a computer data bank and analyzed to yield valuable insights into trends in abundance, migration patterns, factors influencing bird distribution, etc. Those who participated in the count Thanksgiving 1982 and/or 1983 will automatically be mailed the necessary form in early November. If you would like to become a participant, you may obtain report forms and instructions by writing to Dr. Ernest P. Edwards, Thanksgiving Bird Count, Sweet Briar College, Sweet Briar, Virginia 24595. □



## Letters

### Praise for September Issue

Yesterday, I received my September 1984 issue of *Virginia Wildlife*. During the years that I have subscribed to the magazine, I have never received an issue that was as well written and covered so much about hunting as this issue. The articles from hunting to previous years' statistics, to the Virginia Big Game Contest, to the outlook for the upcoming hunting season were absolutely excellent.

Keep up the good work.

Charles A. Rogers  
President  
Virginia Peninsula  
Sportsman's Association

### What Is It?

Enclosed is a set of scale samples taken from the side of a fish I caught.

Upon filleting the fish, I found the meat contained yellow spots all through it. I asked several people about this and could not get a satisfactory answer. I was wondering if you could tell me what was wrong with the fish and what causes these spots.

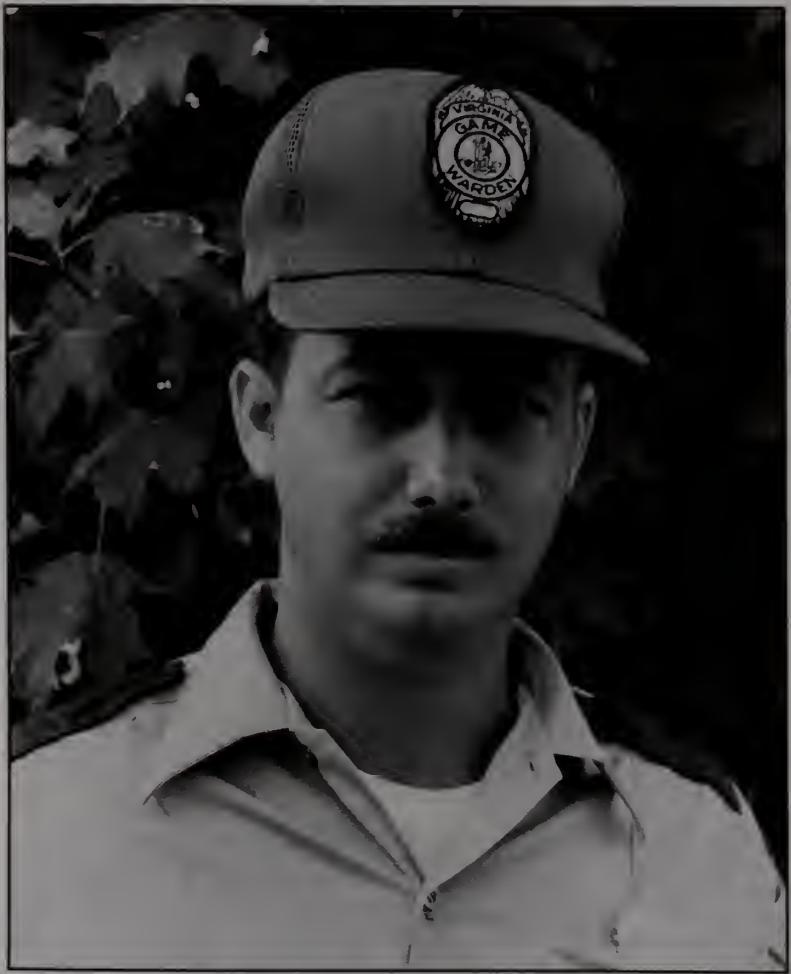
Thank you for your time.

Wayne Wall  
Axton

The fish you caught undoubtedly contained encysted parasites commonly called yellow grub. It has a rather complicated life cycle. The fish containing parasites is eaten by a bird whereupon the worms mature and lay eggs which pass out in the bird's droppings. Snails eat the eggs, the fish eat the snail and the small grubs form cysts in its flesh to start the cycle over.

The parasites are harmless to humans provided the fish is properly cooked.—Editor

# -November Journal



F.N. Settlebee

## Many Are Called, But Few Are Chosen

*Editor's note: The following article is reprinted from the Roanoke Times-World News with permission.*

Ten years ago, Mike Ashworth was a senior at Virginia Tech, with 17 hours left to earn a B.S. degree in biology when he read an advertisement: "State Game Wardens Wanted."

It sounded like a good deal, a chance to be in the outdoors every day, plenty of opportunities for hunting and fishing, which were favorite pastimes of his while growing up in

the Bassett area. So he applied and was accepted.

Last week, after receiving the coveted "Game Warden of the Year" award from the Commission of Game and Inland Fisheries, Ashworth was in the mood to do some reflecting on his career choice.

For one thing, it didn't lead to the abundance of hunting and fishing that he had envisioned. In fact, if he were a 40-hour-a-week factory or office worker, he'd probably have more time for outdoor sports.

Game wardens, Ashworth soon discovered, miss the fun of opening day of the deer or trout season. That's when their busiest workload occurs. "You kinda get what is left," he said.

The fact is a revelation to many new wardens and would-be wardens, said Col. John McLaughlin, chief of the Commission's warden force. People tend to see what McLaughlin calls the "glad hand" side of a warden's life, not the long and lonely hours of vigilance while watching for a spotlighter, not the phone calls in the night that report a violator, not the holidays away from spouse and children.

McLaughlin said not long ago he was driving a warden candidate back to a bus station after the man had decided to drop the idea of becoming a warden.

"Why?" McLaughlin wanted to know.

"I didn't realize that there was that much law enforcement to it," the man said.

"Wardens are hired primarily for law enforcement," McLaughlin said. "All other things are in support of that."

Ashworth, who had been stationed in Bedford County the past six years, was impressed with that fact the first day on the job. He was assigned as a trainee to a southwest Virginia county, under the guidance of a veteran warden, a big guy well respected in the community.

"We went down on a trout stream and we found a young man fishing out of season," said Ashworth. "The guy ran and I caught him and I wrote my first ticket. I thought that was exceptional, as green as I was. We took the guy back to his house and were parked along the road when a sheriff's deputy went speeding by with his red light on."

The veteran warden radioed to see what was happening and the deputy told him that another deputy had been shot and that assistance was needed.

"We took out after him, driving down crooked roads, trying to pass everywhere you could see 30 feet.

Once when passing on a bridge, I really didn't think I was going to make it through my first day."

"Boy, you got an extra box of bullets in the dash?" the veteran warden asked Ashworth, his big hand wrapped around the steering wheel of the fast-moving car.

"No, sir," Ashworth answered. "I don't have any extra bullets."

The truth was, Ashworth recalled, he didn't even have any rounds in his service revolver. He had shot up all he'd been given while practicing with his new gun.

When Ashworth and the veteran warden reached the mishap, they discovered a deputy had been killed, two shots fired into his head. The scene was chaotic, Ashworth remembers. Calmly, the veteran warden took charge, using the deputy's radio to call other law enforcement officers, directing them to set up roadblocks. In a short time the assailant was captured.

"I was wondering if that was just a normal day," said Ashworth.

It wasn't, thankfully, but most days are demanding.

"You are expected to be on call 24-hours a day," he said. "To get a day off you almost have to leave your house."

"When a warden is off duty there is no one to step in to take the tour over," said McLaughlin. That makes it different from any other police force, he said.

Since wardens are paid from the license fees collected from hunters, fishermen and boaters, "We could never tax the sportsmen to where we could beef up our organization like any other police force," said McLaughlin. "To do that we would have to put three wardens everywhere we now have one."

Currently the state has 137 wardens, including three supervisors in Richmond, McLaughlin said. That is 10 fewer than the normal allotment, due to state cutbacks in manpower. Before the cutback, the warden force was about the same as 20 years ago, McLaughlin said. "So you can see we aren't exactly building an empire."

Hardly a week goes by without some sheriff or county board of supervisors requesting an additional warden, said McLaughlin. There are no more to be had, which means most counties are left with one apiece, or two at the most.

Bedford is bigger than average, 756 square miles, from the high country of the Blue Ridge Parkway at its north end, southward through green valleys and timbered hills to the blue-water expanses of Smith Mountain Reservoir. That gives it a diversity of outdoor opportunities, ranging from hunting some of the finest-antlered deer in the state to boating, fishing and skiing on Smith Mountain Lake.

It is the kind of place Ashworth wanted to be, so when an opening occurred, he applied, moving from Prince Edward County. Once in Bedford, he began commuting to Tech on his day off to complete his degree, after bailing out in his senior year to become a warden.

Approximately 25 percent of the wardens have college degrees, McLaughlin said. There is no scarcity of good applicants, he said. During one of the most recent warden recruitment efforts, 15 positions were advertised and 700 applications were received. All this, despite a starting salary of \$15,118.

The idea is to locate career people like Ashworth, said McLaughlin. "We have to determine if the applicant is genuinely interested in being a warden or is just job hunting."

Women remain a rarity on the force. Currently, there are two. There are no blacks, and this is viewed as a problem that is being addressed, said McLaughlin.

Despite the long hours and modest pay, "we have some of the best wardens in the country, and our outfit continues to rank in the very top of the whole country," McLaughlin said.

"Being a warden grows on you and gets in your blood," said Ashworth. "It is an extremely interesting job, and it is hard to think right off of another job I would like to trade it for."

That statement was uttered on a sunny August day last week. It may

be more difficult to make when the deer season opens, and Ashworth works 15 to 18 hours a day, climbs into bed and is awakened by a call to check on a spotlighter.

"A lot of wives of wardens don't see their husbands too often during the hunting season," he said. "It is bad on the children, too. You have to work weekends and holidays. As far as scheduling something socially with friends or family, sometimes it is hard. No doubt about it, wardens have a high divorce rate."

There are rewards, too. Like when Ashworth checks the license of a young hunter and is told, "You taught me in a hunter safety class."

"That makes you feel good, especially if his licenses are right and he has respect for wildlife."

Ashworth believes respect for game and fish laws is growing. "A lot of sportsmen are getting fed up with lawbreakers; they have seen the damage they are doing, so we get more help now than we did years ago."

There remain those who feel that the laws were made for the other guy, and worse yet is the new breed of professional violators who hunt and fish for the profit obtained from the sale of fish and game. These law-breakers often are well equipped, highly mobile and frequently have communication systems superior to those of wardens, Ashworth said.

Ashworth instructs approximately 500 to 1,000 students a year in hunter safety. He has the reputation of being a high ticket writer, although he won't readily reveal how high. It was his performance of duty, positive attitude and excellent manner in which he represents the Commission that led to his Warden of the Year Award, said McLaughlin.

In November, he will be honored during a meeting of the Southeastern Association of Game and Fish Agencies in New Orleans.

Ashworth isn't exactly sure when in November. He knows for certain that if it is during the deer season he will have a tough time getting away. □

by Bill Cochran

# November Journal

## Personnel Changes

Robin Schroeder, *Virginia Wildlife's* art director since 1978, resigned in July. Ms. Schroeder was responsible for many of the improvements made during the past six years in the magazine's look; during her tenure, *Virginia Wildlife* became recognized as one of the top publications of its kind in the United States and Canada. She is now an art director with Cabell Eanes, an advertising agency in Richmond.

Cindie Brunner, formerly an illustrator with the Missouri Department of Conservation, has joined the *Virginia Wildlife* staff as its new art director. Ms. Brunner was an illustrator with the Department for six years, and designed and illustrated publications for the education section of the agency. She also worked as an illustrator for the art director of that agency's magazine, *Missouri Conservationist*.

Francis N. "Curly" Satterlee retires this month. Satterlee has been an information officer/pilot for the Commission for 16 years. Among his duties were writing the agency's press releases, acting as its chief photographer, and writing for *Virginia Wildlife* magazine, notably the monthly "Personalities" column. (Satterlee himself was the subject of a special edition of that column, written by Sarah Bartenstein in the October 1980 issue.) As a pilot, Satterlee assisted the various divisions within the agency on such assignments as mapping wildlife habitat across the state and locating wildlife through the use of radio telemetry, and has assisted other agencies, as well. Satterlee worked with the State Water Control Board and EPA in 1980 to locate an oil spill that threatened the water supply of the City of Fredericksburg.

Satterlee's replacement has not been named. □

## No Pre-Registration at Ft. A.P. Hill

In our September issue, we published an article by Gerald Almy titled, "Hunting on Virginia's Military Areas." Mr. Almy wrote that hunters could register in advance to hunt at Ft. A.P. Hill. While this was a possibility at one time, it is no longer the case. Registration is now on a first-come, first-served basis.

If you have questions about registration to hunt at A.P. Hill, write to the address given in the article: Commander, U.S. Army Garrison, Fort A.P. Hill, ATTN: Hunting Section, Building TT0163, Bowling Green, Virginia 22427; or call 804/633-8300 or 804/633-8219. Ask for the hunting section. □

## Wanted: Game Wardens

Applications are being accepted until November 30 for game warden positions in Virginia. The Commission of Game and Inland Fisheries will hire a minimum of two wardens.

Applications are being accepted at all offices of the Virginia Employment Commission November 1-30. Testing of applicants will occur at Employment Commission offices in Falls Church, Richmond, Norfolk, Roanoke and Bristol. Applicants will be notified as to time and place of testing.

After successful applicants are trained for 12 to 14 weeks beginning in May 1985, each is assigned to a county. Starting salary is \$15,118 annually.

Qualifications include a minimum age of 21 at time of employment; 20/40 or better uncorrected vision; high school diploma or accepted equivalency; and applicants must be able

to pass a physical exam obtain a motor vehicle operator's license.

Applicants are also thoroughly investigated by the Commission's law enforcement division for character, fitness to serve in a law enforcement capacity and interest and abilities in wildlife conservation.

The Commission last employed new wardens in 1982, and stiff competition—several hundred applicants for two positions—is expected. □

## Subscriber Service

If you're moving, please don't forget to let *Virginia Wildlife* know. Use the form below: attach a recent label from *Virginia Wildlife*, and fill in your new address in the blanks provided. Please allow six to eight weeks for a change of address to be reflected on your *Virginia Wildlife* label.

If you have questions about this, or any question concerning your *Virginia Wildlife* subscription, write to us in care of Data Processing, Virginia Game Commission, P.O. Box 11104, Richmond, Virginia 23230-1104, or call 804/257-1449.

New Address	City	Zip	State	Effective Date	Attach most recent address label here.
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# The National Scene

Proposed regulations have been published in the *Federal Register* to open the new Alligator River National Wildlife Refuge in North Carolina to public hunting. This refuge, with headquarters in Manteo, covers 118,000 acres donated by the Prudential Life Insurance Company.

DuPont Stren is offering fishing films to clubs. For a brochure listing films write to "Stren Films," DuPont Company, General Services Film Library, 1111 Tatnall Building, Wilmington, Delaware 19898.

There was a 14 percent increase in waterfowl harvest of all ducks on the Atlantic Flyway last year, except for black ducks. The harvest restriction imposed last year resulted in a 17 percent decline in the black duck kill.

New Jersey is issuing its first State Waterfowl Stamp this year.

This year's duck migration is expected to be down four percent. Actually, this is too close to call: say it

will be about the same as last year. Goose populations look great.

The National Wildlife Federation is petitioning the U.S. Fish and Wildlife Service to establish 95 new steel shot zones, or ban hunting in those zones this year because of potential lead shot poisoning of eagles.

The Federal Energy Regulatory Commission is responsible for licensing new and existing power generating dams. A federal court ruling in the Northwest says that fishery mitigation measures must be developed at the time a dam license application is processed. This is great help to anadromous fish. Any new dam license was well, as nearly 200 other existing licenses about to expire over the next 10 years must follow the laws upheld by the court.

Smith and Wesson terminated its agreement with Howa, Ltd., of Japan. Howa produced pump and automatic shotguns and centerfire rifles for

S&W. All warranties will be fully backed and S&W will continue to stock parts.

Firearms involvement in U.S. homicides in 1983 was at its lowest since 1966, reports the FBI.

The move to divert Pittman-Robertson Hunter Education funds to victims of crime continues in the House.

Virginia's Operation RESPECT launched "Project 100,000." Governor Robb signed one of the first of the 100,000 pledge cards which reads as follows: "I pledge to support the objectives of Operation RESPECT and to observe the rules of ethical conduct while enjoying outdoor activities on the lands and waters of Virginia." OR's new executive director, Don Shumaker, says the organization intends to obtain 100,000 pledges by early 1985. For more information contact Operation RESPECT, P.O. Box 1346, Glen Allen, Virginia 23060. □

by Jack Randolph



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# The Common Snipe

Contrary to the stories you may have heard at camp, the snipe is not something you hunt for with a gunny sack under a full moon. In reality, it is one of our "gamiest" game birds, although it is seldom hunted intentionally. Most snipe are shot incidental to duck hunting.

The common or Wilson's snipe is the smallest of our game birds. The favorite name used by most hunters is jacksnipe. Other common names include marsh snipe, bog snipe, meadow snipe, American snipe, gutter snipe (really), and shadbird.

Its color is mainly a mottled, brownish-black and chestnut above, while its neck, throat and breast are brownish-white or cream, spotted and marked with dark brown on its sides. Its shoulders are edged in brownish-white which forms two stripes, one on each side, narrowing toward the tail and very visible in flight. A band of rufous red on its tail is also a good field mark in flight. Other good field marks are its striped head, whitish belly and long bill.

The snipe's long, slender bill is perfectly suited for probing and feeding in the mud. Its weight ranges from two and one half to five ounces and it measures about 10½ to 12 inches in length. In flight, its wings appear long and pointed and its tail short. The jacksnipe is a swift, erratic flier, with irregular wingbeats. When it flushes, it utters a repetitious "scaip-scaip" which sounds like "escape," although it flushes silently. One curious habit of the snipe is its suicidal tendency to circle back over the spot from which it was originally flushed.

Don't confuse the snipe with its close cousin, the woodcock. While the snipe can "hunker" down, fluff its feathers and look plump, it is not as chunky as the woodcock. The woodcock has large eyes and rounded wings. More significantly, woodcock inhabit wooded bottomlands or moist woodlands near water courses while the snipe—as its many names imply—is found in open, wet meadows and shallow marshes. They are especially fond of mudflats in

marshes, or along rivers and lake shores away from human activity. Seldom do the habitats of the two overlap except in more northerly breeding ranges. They are similar in that each has protective coloration for the habitat in which it lives, and both have a habit of "freezing" or holding tight until almost stepped on. The woodcock normally flushes straight up due to the trees in its terrain, while the snipe departs straightaway with a zig-zagging flight style. When landing, the snipe drops from flight at the last second before lighting on the ground.

Biologists studying the snipe have found that over four-fifths of its diet consists of aquatic insects mostly in their larval stages, worms, crustacea, snails, numerous terrestrial insects and occasionally tiny seeds of marsh vegetation. The snipe feeds in small, scattered groups, usually around the protective cover of small shrubs or grassy tussocks on mudflats or exposed marsh bottoms.

Snipe begin moving north about the time the spring thaw begins, leaving the south about mid-March. They migrate at night in small flocks, stopping off in wet meadows, pastures with mudholes or even in plowed fields that contain standing water as well as shallow marshes. The males arrive at breeding grounds a couple of weeks earlier than the females do. The male snipe has a peculiar spring courtship flight performance. He darts around in wide circles high in the sky in roller-coaster fashion. When he dips down and his speed increases, air passing over the outer tail feathers from the wings apparently causes the feathers to vibrate, producing a loud, humming noise, with each wing beat. This is called "winnowing." The elliptical flight path usually carries the male to a spot in sight of the female; the up-and-down flight being repeated a number of times.

The snipe breeds over most of Canada, except for the very far north, and is very dependent on Canadian boreal forest peatland habitat for its reproduction. However, it commonly breeds through the northern tier of states from the Rockies to New England as well. The snipe's nest begins merely as a depression in the ground

and is added to as egg-laying proceeds. Sometimes it may be formed on a tussock or in low shrubs of a bog or marsh. Mosses, grasses and down are commonly used nesting materials.

Clutches consist of three to four, grayish-olive eggs, spotted and streaked with brown and black. They are usually laid in mid-April or early-June. The eggs are incubated for about 20 days and once hatched, the male assists in rearing part of the brood. The downy black young follow the parent birds wherever they go, being fed by them for the first week or so. The rapidly growing young reach flight stage in about two weeks and are capable of full flight in three.

The snipe is abundant throughout its major ranges; biologists estimate the continental populations at over five million. They begin their southerly journeys in August, and large numbers reach the United States by the end of that month. Heavy migrations continue throughout September and October. The snipe's wintering grounds extend from coastal Alaska and British Columbia, western Washington, southern Idaho, northern Utah, eastern Colorado, east to Virginia and most of the United States south of that line as well as eastern Mexico, Central America and northern South America. Some of the largest concentrations of wintering snipe are found in the fresh and brackish marshlands of the Atlantic and Gulf Coasts.

There was a time when the snipe was hunted more heavily. The market hunting pressures of the late 1800's and early 1900's, plus the severe droughts of the early 20th century followed by severe cold on their breeding ranges, devastated snipe populations. From 1941 to 1953, snipe hunting was closed. When it was reopened in 1954, it didn't spark much interest. The long closure had all but killed the old snipe hunting traditions. Only in recent years has that spark been re-kindled. An estimated 900,000 birds are harvested annually. The snipe is a fast, erratic flier that will test the best of wing shots; it can be hunted without dogs and it is fairly common over a wide range. □

by Carl "Spike" Knuth

# "Old Ruff"

by Jim Wilson

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This year, why not take the time to really enjoy the holiday season? Who needs shopping malls, long lines, hours spent trying to find the right size, the right color, or that game that everyone is sold out of?

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